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COORDINATION OF FUTURE JOINT FIRES: DO WE NEED A JOINT FIRE
SUPPORT COORDINATOR?

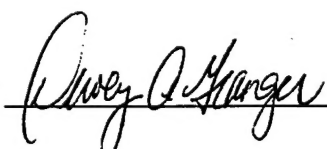
By

Dewey A. Granger

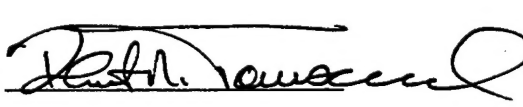
Major, U. S. Army

A paper submitted to the Faculty of the Naval War College in partial satisfaction of
the requirements of the Department of Joint Maritime Operations.

The contents of this paper reflect my own personal views and are not necessarily
endorsed by the Naval War College or the Department of the Navy.

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8 February 1999

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20000621 129

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DHS QUALITY INSPECTED 4

1. Report Security Classification: UNCLASSIFIED			
2. Security Classification Authority:			
3. Declassification/Downgrading Schedule:			
4. Distribution/Availability of Report: DISTRIBUTION STATEMENT A: APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED.			
5. Name of Performing Organization: JOINT MILITARY OPERATIONS DEPARTMENT			
6. Office Symbol: C		7. Address: NAVAL WAR COLLEGE 686 CUSHING ROAD NEWPORT, RI 02841-1207	
8. Title (Include Security Classification): Coordination of Future Joint Fires: Do we need a Joint Fire Support Coordinator?			
9. Personal Authors: MAJ Dewey A. Granger			
10. Type of Report: FINAL		11. Date of Report: 8 February 2000	
12. Page Count: 23		<i>Advisor: CAPT Towne</i>	
13. Supplementary Notation: A paper submitted to the Faculty of the NWC in partial satisfaction of the requirements of the JMO Department. The contents of this paper reflect my own personal views and are not necessarily endorsed by the NWC or the Department of the Navy.			
14. Ten key words that relate to your paper: Joint Fires, Fire Support, Joint Fire Support Coordinator, Joint Fire Support Coordination Element, Operational Fires, Interdiction, Close Air Support, Battlespace, Deep Operations, Joint Operations			
15. Abstract: <p>This paper will address the issue of whether joint doctrine should identify a JFSCoord organization capable of advising the JFC in joint fires planning and coordination. This study is important because past events and the current situation prove that coordination of joint fires will continue to be a significant challenge for the operational commander. Further, the research will show that current joint doctrine does not address the core of the issue. Additionally, current doctrine drives future service component capabilities that will continue to overlap and more complicate the problem.</p> <p>This composition investigates the question of: Does the Joint Force Commander need a Joint Fire Support Coordinator? This paper is organized into three parts. The first section identifies problems incurred during Operation Desert Storm. This is one of the recent indications of advanced technology creating coordination problems between service components. The second section analyzes service component views and doctrine published as a direct result of Operation Desert Storm. Since doctrine drives weapons development, this will first indicate overlapping capabilities. The last section will identify future component capabilities currently in development. It will show the merging of battlespace between all services.</p> <p>The paper recommends that joint doctrine identify a Joint Fire Support Coordinator (JFSCoord) and Joint Fire Support Coordination Element (JFSCE) to assist the JFC in the execution of his fire support duties. In this way, maximum synchronization of component fire support efforts are achieved.</p>			
16. Distribution / Availability of Abstract:	Unclassified X	Same As Rpt	DTIC Users
17. Abstract Security Classification: UNCLASSIFIED			
18. Name of Responsible Individual: CHAIRMAN, JOINT MILITARY OPERATIONS DEPARTMENT			
19. Telephone: 841-6461		20. Office Symbol: C	

Abstract of

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SUPPORT COORDINATOR?**

This paper will address the issue of whether joint doctrine should identify a JFSCoord organization capable of advising the JFC in joint fires planning and coordination. This study is important because past events and the current situation prove that coordination of joint fires will continue to be a significant challenge for the operational commander. Further, the research will show that current joint doctrine does not address the core of the issue. Additionally, current doctrine drives future service component capabilities that will continue to overlap and more complicate the problem.

This composition investigates the question of: Does the Joint Force Commander need a Joint Fire Support Coordinator? The paper is organized into three parts. The first section identifies problems incurred during Operation Desert Storm. This is one of the most recent indications of advanced technology creating coordination problems between service components. The second section analyzes service component views and doctrine published as a direct result of Operation Desert Storm. Since doctrine drives weapons development, this will first indicate overlapping capabilities. The last section will identify future component capabilities currently in development. It will show the merging of battlespace between all services.

The paper recommends that joint doctrine identify a Joint Fire Support Coordinator (JFSCoord) and Joint Fire Support Coordination Element (JFSCE) to assist the JFC in the execution of his fire support duties. In this way, maximum synchronization of component fire support efforts are achieved.

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COORDINATION OF FUTURE JOINT FIRES: DO WE NEED A JOINT FIRE SUPPORT COORDINATOR?

Background

“The merging of air, land and sea combat power will likely continue down to the lowest tactical levels. Just as there is no air, land, and sea war, we have passed the point where it makes sense to develop separate air, land and sea campaigns.”

GEN (Ret) Douglas MacArthur

The complexity of modern joint fire support presents the commander with a multitude of challenges. Technological advances present the JFC with a service component menu of options with which to defeat the enemy throughout the operational depth of the joint area of operations. On the other hand, technology also exacerbates the inter-service rivalry as each applies its own doctrinal concepts on how to best synchronize and integrate fires. Both of these were evident during Operation Desert Storm as doctrinal conflicts and technology began to overlap and compete for battlespace.¹

Despite these challenges, Joint Pub 3-09, Doctrine for Joint Fire Support, does not identify an authoritative means by which to gain unity of effort in the future. Essentially, it presents a concept of joint fire support through doctrinal definition and principle.² Additionally, the JFC is given a multitude of joint fire support responsibilities from concept of fires to execution.³ Yet, given the increasing technological advances in target acquisition and munitions systems, the future will require specialized organizations to maintain the operational fire support tempo.

¹ Michael R. Gordon and General Bernard E. Trainor, *The General's War*, (Boston, MA: Little, Brown, and Company, 1995), 87-89.

² Joint Chiefs of Staff, *Doctrine for Joint Fire Support, Joint Pub 3-09*, (Washington: 1998), I-2.

³ *Ibid.*, I-4 and I-5

To overcome the aforementioned various fire support challenges, the JFC must have a Joint Fire Support Coordinator (JFSCoord) and Joint Fire Support Coordination Element (JFSCE). This change will ensure maximum synchronization of component fire support efforts.

This paper will address the issue of whether joint doctrine should identify a JFSCoord organization capable of advising the JFC in joint fires planning and coordination without the aura of single service parochialism. Further, it will show that current joint doctrine, when compared with service component doctrine, does not address the core of the issue in an authoritative manner. Additionally, this paper will show that current doctrine drives future component capabilities that will continue to overlap and more complicate the problem.

Some have argued that by creating more restrictive fire support coordination measures, or creating ad hoc organizations, we will be able to solve the problem. However, this paper will show that these recommendations fall short when considering future component capabilities and doctrine.

Definitions

In order to understand the parameters of this paper, several "fires" definitions must be clarified. Operational fires are defined as the application of firepower to achieve a decisive impact on the outcome of a major operation. They are distinguishable from tactical fires by time, space, and planning echelon.⁴ Joint fires are produced during the employment of forces of two or more components in a coordinated action toward a common goal.⁵ Given the limited nature of recent operations, Army deep fires and interdiction fit the definition of operational fires. These fires normally occur beyond the FSCL, but short of strategic level targets. For the purpose of this paper, joint fires will be considered operational fires, since the overall goal of each is to

⁴ Milan Vego, *On Operational Art*, (U.S. Naval War College, 1999), 289-296.

⁵ *Joint Pub 3-09*, GL-7.

effectively support the JFC's overall operational concept regardless of the size of the Joint Operating Area (JOA).

OPERATION DESERT STORM: THE DEBATE BEGINS

Planning

Operation Desert Storm exhibited a major rift in the execution of joint fires in both planning and execution. General Norman Schwarzkopf designated LTG Charles Horner as the JFACC. General Horner's responsibilities were enormous. By the war's end, more than 2,000 Coalition aircraft sorties of all types were flown each day.

During the Gulf War, the ground commanders made repeated complaints about inadequate battlefield preparation. An ARCENT situation report on 18 February stated that "air support related issues continue to plague final preparation of combat operations and raise doubts concerning our ability to shape the battlefield prior to the initiation of the ground campaign...Army-nominated targets are not being serviced. Efforts must be taken to align the objective of the air and ground campaign."⁶ Moreover, LTG Franks, VII Corps Commander, complained that the JFACC attacked only 300 of his 2,000 nominated targets.⁷

The decision not to provide the requested fire support for the ground commanders was ultimately made by General Schwarzkopf, the JFC, in accordance with joint doctrine.⁸ However, he had no primary staff member to advise him as to the best fire support means to the end and ensure that his concept and intent were supported. Instead, the Joint Targeting Coordination Board (JTCB) interdiction targets were reviewed by the DCINC. Many targets were rejected

⁶ Gordon and Trainor, 330.

⁷ Richard B. H. Lewis, *JFACC Problems Associated with Battlefield Preparation*, (Carlisle Barracks, PA: Army War College, 1993), 29.

⁸ *Joint Pub 3-09*, I-4.

during this process for various reasons. Once the target list was complete, LTG Horner, the JFACC, assigned attack means to each target.⁹

This situation exhibits two basic problems. The center of the problem rests in the JFC's staff not communicating effectively back to ground commanders. By not doing this, the ground commanders assumed that their nominated targets were not being included in the overall plan. Additionally, it exhibits the true role of the JFACC. As a commander, his job is not one of coordination and integration with the ground elements. He is focused on coordination and integration of airspace. Therefore, the need for a primary staff member to conduct this function exists.

Execution

Prior to the beginning of the ground offensive, the JFACC controlled and established a single Fire Support Coordination Line (FSCL) to facilitate bombing. As the operation progressed, the FSCL became a restrictive measure. In this way, all targets beyond the FSCL would need to be in the ATO and all targets short of the FSCL must be coordinated with the ground commander. This was the only way to ensure that the air and ground efforts did not overlap. Yet, it did not work once the tempo of the ground war began.

Following the opening of the ground war, the JFC delegated the establishment of individual Fire Support Coordination Lines (FSCL) to each Corps Commander in order to ensure timeliness and accuracy of data. Unfortunately, this created a parochial atmosphere by that allowed ground commanders to control potential targets. Additionally, these targets could have been attacked through a more effective joint effort.

One such example was exhibited in the XVIII Airborne Corps sector. The Iraqi Army was canalized on the Hawr Al Hammar causeway. The causeway was beyond the currently

⁹ Lewis, 33-34.

established FSCL at the time. In order to eliminate JFACC coordination requirements, the XVIII Airborne Corps commander moved the FSCL to a position well north of the Euphrates River. This was done to allow organic AH-64 assets to attack the Iraqis. But from a joint perspective, it had a negative impact. It precluded the Air Force from attacking targets on the causeway. "The Army was moving the FSCL well out past where they were going to impact on anything... When they did that, they took away airspace and ground area for us to hit."¹⁰ In his mind, the XVIII Abn Cdr was prosecuting the deep battle in accordance with Army doctrine throughout the depth of the battlespace. But overall, he desynchronized the joint fires effort.

Once again, this situation presents the JFC commander with a unique problem. On the one hand, he must ensure that the ground component commanders have the authority to prosecute actions across the spectrum as stated in FM 100-5. On the other hand, he is responsible for coordinating a multitude of attack assets. This situation further emphasizes the need for a JFSCoord to closely monitor the situation, anticipate actions, and make tough decisions based on the overall joint effort.

DOCTRINAL DIFFERENCES: THE DEBATE CONTINUES

When considering the necessity for a JFSCoord, one must first look at the doctrinal perspectives among the service components. Doctrine establishes the fundamental principles by which military forces, or elements thereof, guide their actions in support of national objectives.¹¹ Doctrine is the foundation for each services capabilities and reflects future planned capabilities as well. Accordingly, all services express parochial views with regard to the application of

¹⁰ Gordon and Trainor, 411-412.

¹¹ Joint Chiefs of Staff, *DOD Dictionary of Military and Associated Terms*, Joint Pub 1-02 (Washington: 1998). 135.

doctrine. Service component views differ and often times expose themselves during the conduct of joint operations.

This section analyzes current service component doctrinal philosophies on the concept of deep fires. In this way, we are able to examine how doctrinal differences ultimately might preclude unity of effort during joint fire support operations.

Army Doctrinal Concepts¹²

United States Army doctrine roots are founded on the concept of Airland Battle Doctrine as contained in FM 100-5, Operations. The concepts contained within FM 100-5 organize the battlefield in terms of three key elements: the area of operations, battlespace, and operations in depth.¹³

The concept of the area of operations (AO) essentially gives the commander the responsibility and authority to take action within his assigned geographical boundaries.¹⁴ Moreover, his AO may be a smaller part of a larger joint operations area. This first concept represents the physical boundaries to delineate the responsibilities of a commander, but do not limit his ability to affect potential threats outside of his AO.

The concepts that give the commander the authority to shape the battle outside of his AO are known as battlespace and operations in depth.¹⁵ Moreover, it allows the Joint Force Land Combined Commander (JFLCC) to shape the battlefield prior to and during the fight between committed forces. The most important aspect of battlespace was that it promulgated doctrinal concepts prior to the development of advanced weapons systems consisting of long range targeting and precision attack.

¹² Kevin M. Woods, "Deep Operations: Twin Sons of Different Mothers", *Field Artillery Journal*, Jan-Feb 98, 51.

¹³ Department of the Army, *FM 100-5, Operations* (Washington: 1993), 6-4.

¹⁴ *FM 100-5*, G-0.

Deep battle's purpose is to shape the battlefield for the commander by denying the enemy freedom of action, while destroying or disrupting his synchronization and operational tempo.¹⁶ The 1993 version of FM 100-5 presents the position of separate close and deep battles, either of which may be the main effort.¹⁷ Therefore, the concept that the deep battle can achieve an operational objective is an integral part of U.S. Army doctrine.

The Army concept of operations in depth maintains that the ground maneuver commander shape the battlefield at all levels. Yet, current Army systems, the ATACMS and Apache, do not provide the maneuver commander with a large number and variation of deep attack systems. Additionally, depending on the geographical situation of the terrain, some target sets identified by the JFLACC may be significantly beyond the FSCL. Accordingly, this situation would either prevent the use of the Apache helicopter and/or the effective use of the ATACMS. Moreover, such a situation would require significant coordination with the JFACC for apportionment of attack assets and might preclude timely attack.

Marines

Marine Corps elements are specifically mentioned in joint publications centered on the Marine Air Ground Task Force (MAGTAF) in two basic situations. The first situation is when the MAGTAF is in the amphibious objective area (AOA). In this case, only the JFC may subordinate MAGTAF assets for use in the JOA. In fact, during amphibious operations joint publications specifically encourage the use of integrated Marine air and ground forces.¹⁸ In the second situation, once the AOA is no longer exists, the MAGTAF may be given a subordinate

¹⁵ FM 100-5, G-12.

¹⁶ FM 100-5, 7-13.

¹⁷ FM 100-5, 7-12.

¹⁸ Joint Chiefs of Staff, *Unified Action Armed Forces, Joint Pub 0-2*, (Washington: 1995), I-4.

ground operations area within the JOA that extends beyond the FSCL.¹⁹ This allows the MAGTAF to conduct deep interdiction and long range reconnaissance using its own organic assets.

In the Marine Corps situation, the challenge is how to integrate its organic assets into the joint arena. For example, the extension of the JOA beyond the FSCL produces a significant coordination challenge for the JFACC, but is essential to interdiction and long range reconnaissance support of the MAGTAF. Unfortunately, this may also lead to unnecessary redundancy and airspace conflicts; an essential JFACC task. Joint doctrine attempts to address this problem by stating that all excess sorties will be provided to the JFC. However, long-range reconnaissance and interdiction are not excess sorties because they provide a distinct contribution to the overall joint force effort.²⁰

Air Force Doctrinal Concepts²¹

Airmen understand doctrine as presented in Air Force Manual 1-1, Basic Air Force Doctrine. Specifically, AFM 1-1 delineates basic fire support into an organization of two areas. Tactical fires are those short of the Fire Support Coordination Line (FSCL) in the form of Close Air Support (CAS) of ground forces. Fires beyond the established FSCL are considered operational fires, which include interdiction, strategic attack, suppression of enemy air defenses, offensive counter air, and other non-lethal fires.²² These tasks and systems are normally apportioned by the JFC. The primary advisor to the JFC is the Joint Force Air Component Commander (JFACC).

¹⁹ Joint Chiefs of Staff, *Doctrine for Joint Operations*, Joint Pub 3-0, (Washington: 1995), III-33.

²⁰ *Joint Pub 0-2*, IV-4/5.

²¹ Kevin M. Woods, "Deep Operations: Twin Sons of Different Mothers", *Field Artillery Journal*, Jan-Feb 1998, 51

²² Department of the Air Force, *U.S. Air Force Manual 1-1, Basic Air Force Doctrine*, Vol 2, 165-168.

The JFACC conducts three basic tasks in support of the JFC.²³ First, he is the airspace coordination authority. Accordingly, he is the single point of contact for all airspace management. These systems include cruise missiles, ATACMS, fixed wing, and rotary wing aircraft. Second, the JFACC integrates joint deep attack missions into a plan using the air tasking order (ATO). The ATO sequences all deep operations in order to prevent airspace conflicts and avoid unnecessary redundancy in target attack. Third, the JFACC may be appointed as the area air defense commander. In doing this, the JFACC is called upon to defend the rear area from ballistic missile and other airborne attacks. Moreover, he integrates all air defense systems to prevent the engagement of friendly aircraft returning to their launch bases.

Joint fires require a great deal of effort to synchronize in support of the JFC's overall plan. The JFACC is already called upon to conduct a large number of tasks in support of the JFC to enhance unity of effort. As technology increases, so will his tasks. Moreover, the JFACC is a commander, not a permanent, member of the JTF staff. Therefore, he may not be present during deliberate and crisis action planning. Additionally, the manning requirements for the Joint Air Operations Center (JAOC) do not provide for a joint effort accommodating the needs of each service component. In fact, an Air Force study concluded that changes to the JAOC were necessary to make it a truly joint in structure in terms of service component representation. Unfortunately however, the study fell short in recommending an increased representation from ground forces.²⁴

Another potential source of joint fires friction within the Air Force is the ongoing doctrinal debate between strategic and tactical airpower theorists. Unfortunately, this debate

²³ Joint Chiefs of Staff, *Command and Control for Joint Air Operations*, Joint Pub 3-56.1, (Washington: 1994), II-3/4.

²⁴ Department of the Air Force, *Joint Air Operations Center: C4I Structure Study*, (Air War College: 1996). On-line internet at <http://www.au.af.mil/au/datagase/research/ay1995/acsc/95-006.htm>.

may extend beyond theory and affect the priorities for targeting and apportionment even in the case of clear and concise commander's guidance.²⁵ For that reason, this friction may serve to desynchronize the joint fire support effort and prevent essential tasks from being fully accomplished.

Joint

The JFC is responsible for ensuring the synchronization and integration of fires. The J3 serves as the JFC's principle advisor for the coordination, integration, and synchronization of joint fires with other major elements of the operation.²⁶ Moreover, the J3 may be augmented with a Joint Fires Element (JFE) to assist in the accomplishment of his responsibilities.²⁷ Unfortunately, joint doctrine leaves the decision to implement such an organization up to the CINC. CINC's are required to fill this organization from current organizational structures, potentially creating a burden on already over tasked staffs. Moreover, as an ad hoc organization, the JFE could create a void during deliberate planning and may not create a habitual relationship for the joint force staff. More problematic, joint doctrine does not address specific tasks for this element, but leaves it up to the individual recommendation of the J3. This could lead to confusion among members of the staff during crisis action planning.

COMPETING CAPABILITIES: FUEL TO THE FIRE

Acquisition Systems

Given the aforementioned doctrinal views of each of the services, future developed technologies will present yet another challenge to the JFC. Across the force, the near future will provide the JFC with the ability to see deep into the enemy's operational center of gravity in real

²⁵ Gordon and Trainor, 87-89.

²⁶ *Joint Pub 3-09*, I-4/5.

time with pinpoint accuracy. At the same time, doctrinal views of component services will become even more blurred as battlespace becomes increasingly congested. In short, the challenge for the JFC increases as capabilities overlap.

The Army's ability to contribute to the target acquisition effort will continue to increase with the introduction of new weapons systems. Both Army helicopters, the RAH-66 and AH-64, will possess communications links that will provide the JFC with real time intelligence of a target area. Moreover, these rotary wing assets will have the ability to conduct coordinated attacks against enemy high payoff targets while providing real time battle damage assessment (BDA).²⁸ Additionally, the Army's unmanned aerial vehicle (UAV) will support not only the tactical commander, but the operational commander as well. Future potential will have these systems developing a sensor to shooter interface.²⁹ They will have the potential to dwell for a long time over the target area while transmitting real time targeting data directly to the target attack system.

With the establishment of U.S. Space Command, the emergence of satellite technology to support near real time intelligence gathering efforts will revolutionize the future. The current trend to organize space forces into the air force's expeditionary model allows the JTF to tailor his specific collection and information capabilities.³⁰ Moreover, these systems may conduct a wide variety of intelligence, surveillance, and reconnaissance (ISR) functions. These functions can be conducted independently from land and sea operations and can complement, support, or be supported by land and sea operations.³¹

²⁷ *Joint Pub 3-09, I-5/6.*

²⁸ Department of the Army, *FM 1-100, Army Aviation Operations*, (Washington: 1997), D-1.

²⁹ Scott Long, "UAVs and WIN: A C4I Winner," on-line internet, <http://www.gordon.army.mil/ocos/bmdiv/ac/SUMR97/UAV.HTM>

³⁰ Department of the Air Force, *Air Force Manual 1-1, Basic Air Force Doctrine*, (Washington: 1997), 71.

³¹ *Ibid.*, 7.

The abundance of these new systems will present the JFC with yet more coordination problems. As these systems are introduced into the force, the potential exists to provide the JFC with a near perfect picture of the enemy's disposition, composition, and indicate the most likely course of action. They will represent a major force multiplier, but only if jointly integrated.

Delivery Systems

In the past, the primary service component executor of operational level fires was the Air Force, but future service capabilities will increase at the pace of technology.

From the perspective of land based systems, the Army continues to develop attack systems with greater range and lethality. The RAH-66 and AH-64 Longbow will provide the JFLACC with the ability to reach out and touch targets at operational depth with more effective and efficient munitions.³² The development of the Army Tactical Missile System (ATACMS) continues as the Block II model will have the ability to attack targets at distances of over three hundred kilometers. Moreover, munitions such as Brilliant Anti-Tank (BAT) and Sense and Destroy Armor (SADARM) will increase the lethality of first round fire support.

The Navy has changed its focus to respond to changes in the strategic landscape. In support of the CNO's concept, "From the Sea", Naval forces will concentrate on littoral warfare and maneuver from the sea.³³ With the ability to attack targets at ranges of over one hundred miles, the Extended Range Guided Missile (ERGM) can strike land targets with accuracy. Moreover, in support of the Marine concept of "Operational Maneuver from the Sea", the Navy continues to develop the Navy Tactical Missile System (NTACMS) and the Tomahawk Land Attack Missile (TLAM). These give the JFC the option to deliver effective killing munitions at

³² FM 1-100, D-1

³³ Department of the Navy, "...From the Sea," (Washington: 1992), 10.

depth to interdict and disrupt forces in support of his operational concept from sea based platforms.

Traditional operational fire support delivery assets are controlled under a single organization augmented with liaison teams. But the merging of capabilities will create a more challenging coordination problem with each new system fielded. Increasing technological capabilities fueled by revolutionary doctrinal concepts will provide all component commanders with the ability to conduct fires at operational depth. On the next battlefield, the JFC must be able to fully synchronize these systems. In order to do this, doctrinal concepts and organizations must be developed far ahead of new technologies.

CONCLUSION

“Doctrine continues to be the engine of change.
Thus...change begins by changing our body of ideas,
changing the way we think about warfighting...”³⁴
LTG(Ret) Frederick M. Franks, Jr.

Throughout this paper, the research describes the challenges facing a JTF commander as he attempts to synchronize operational fires. The overall purpose of this paper was to demonstrate the need to assign a permanent Joint Fire Support Coordinator and staff to each CINC. By doing this, the CINC will have a single coordinator responsible for assisting him in the execution of his fire support responsibilities.

Technology continues to speed ahead at a breakneck pace. Munitions ranges, effectiveness, and lethality move ahead exponentially within the parameters of each service's doctrinal requirements. As this occurs, the lines between close, deep, and rear will become even more blurred. Systems will exploit all aspects of the joint area of operations. Ground, air, and

sea capabilities will overlap. Doctrine must demand the creation of highly specialized and integrated functions and processes to ensure unity of effort throughout the JOA. These specialized functional areas must include the creation of a JFSCOORD and JFSCE.

The JFSCOORD would provide a truly joint staff by penetrating parochial component views to further the joint fires effort. By assigning a permanent JFSCOORD to each CINC staff, the JFC can ensure that the four basic fire support tasks are accomplished within the parameters of his operational concept without regard to inter-service friction. The JFSCOORD will ensure that forces in contact are supported. At the same time, he will need to make tough recommendations to the JFC in order to ensure that the operational aspect of fires continue to support the JFC's intent.³⁵ Moreover, he would ensure that joint fires are synchronized throughout the battlespace by preparing a detailed concept of fires. In essence, the JFSCOORD would become the primary advisor to the JFC in the execution of his fire support responsibilities.

In order to assist the JFSCOORD, JFSCE functions would largely center around the planning and coordination functions of joint operational fires from ground, air, and sea based assets. The JFSCE must co-locate with the JAOC until technology is developed that will allow synchronous communications. Moreover, as communications technology becomes increasingly networked, the JFSCE staff will likely decrease in number as information is processed more efficiently. Certainly, the battlefield coordination detachment (BCD) fulfills the co-location requirement with the JAOC, but does not have the authority to fully realize the potential of joint fires. As an additional task, the JFSCE would recommend positioning of the FSCL based on a joint perspective. By doing this, the FSCL could not be established so as to restrict any

³⁴ Frederick M. Franks Jr., "Full-Dimensional Operations: A Doctrine for an Era of Change," *Military Review*, Dec 1993, 6.

³⁵ *Joint Pub 3-09*, III-2.

individual service component unintentionally. Rather, it would be established based on the most effective attack means while providing direct coordination and immediate dissemination.

From a component perspective, both ground and air assets would continue to operate with greater focus. The JFACC would continue to oversee the coordination and execution of air attack means since he currently has the command and control structure available to accomplish this task. By doing this, he becomes more of a joint air commander and less of a fires coordinator. He is more able to effectively focus on strategic attack and execution. The DOCC would continue to plan, execute, and coordinate deep attacks. However, as part of a total joint effort, they will receive a great deal more personal feedback in both acquisition and delivery means.

Some have argued that the aforementioned problems may be addressed by merely redefining the FSCL and creating a more restrictive atmosphere for deep fires. Moreover, the JFC would ultimately decide where to implement the FSCL.³⁶ Unfortunately, this recommendation creates the same challenges experienced during Operation Desert Storm. As the JFC conducts a multitude of tasks, who ultimately recommends the establishment of the FSCL? As pointed out earlier, Joint Pub 3-09 mentions the J3. Certainly the J3 is able to make this decision, but may not be able to monitor the overall fires situation while at the same time attempting to synchronize all aspects of a major joint operation. Another major shortcoming with this recommendation is its failure to address the advent of future deep attack systems. In this case, coordination of restrictive measures would become even more cumbersome and preclude timely attack. To combat these continuing issues, the JFSCoord is able to constantly monitor the joint fires situation throughout a major operation.

³⁶ LTC R. Kent Laughbaum, *Synchronizing Airpower and Firepower in the Deep Battle*, (Air University Press: 1999), 70.

In the end, the commander's guidance and intent are the true measures of merit for joint fire support. Ultimately, the pinnacle of success in fire support to achieve overwhelming combat powerful synchronized in support of a joint campaign or major operation. To do this, component capabilities and procedures must be fully integrated.³⁷ In order to accomplish this, we must develop authoritative fire support doctrine that will support the JTF's effort without regard to service component conflicts. Joint doctrine must include the implementation of the JFSCoord and JFSCE.

³⁷ *Joint Pub 3-09, I-1.*

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